STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

EDWARD O. SULLIVAN
COMMISSIONER

August 19, 1998

Mr. Emil Klawitter
Code 1823 EK
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19112-2090

Re: Final Report, Monitoring Event 11, Site 9 (March 1998)
Brunswick Naval Air Station

Dear Emil;

The Department of Environmental Protection (DEP or Department) has received and reviewed the report entitled Final Report, Monitoring Event 11, Site 9, (March 1998) prepared by EA Engineering, Science, and Technology. Based on that review the Department has the following comments and issues.

General Discussion:

1. As the Department has suggested verbally in recent RAB meetings, the surface water elevations in the two downgradient ponds should be accurately determined (within nearest 0.1 feet) and reported for each bi-monthly gauging event. These data are viewed as critical to accurately map groundwater flow paths at Site 9. Without such data, DEP is skeptical that the potentiometric surface maps (Figures 4 and 5) have been correctly drawn, since the shallow water table and ponds have to be closely connected hydraulically.

2. The area of potentiometric data collection and contouring needs to be expanded to include more upgradient monitoring wells. The Department recommends that at a minimum the following wells be added: NASB-20, NASB-21, NASB-22, and NASB-204. These well locations should included on figures and future contour maps. Wells NASB 7 through 10 should also be measured to better facilitate the drawing of the most northern potentiometric contour line for Site 9.

3. The Department would like to visit SED-010 sampling location during the scheduled September 14 and 15 observation of sampling at the NEX. We are thinking that a different sampling strategy could be devised to minimize the SVOC and TIC differences between the primary sample and duplicate sample experienced consistently in the past.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

web site: www.state.me.us/dep

Specific Comments:

4. Water Level Gauging, 2.1, page 5, 3rd para:

   "The hydraulic gradient across the subject site is characterized as shallow at 1.0 percent (0.010 ft per foot)..."

   The term "shallow" is inappropriate for describing hydraulic gradients. Please substitute the words "moderately low".

5. Water Quality Indicator Parameters, 2.2, page 5, bottom para:

   "Lower turbidity and conductivity values and higher dissolved oxygen values were observed in ground-water samples during Monitoring Event 11 (March 1998) as compared to Monitoring Event 10 (November 1997). These results are likely attributed to the colder temperatures associated with the March sampling event."

   The comparison summary is accurate, however, the Department questions the reason given. Monitoring Event 9 (July 1997) data show the same trend in decreasing conductivity, but the DO values are generally very low like those of Event 10. Therefore, temperature does not appear to be a factor. The Department suspects these changes are due to changes in the upgradient groundwater environment, or possibly to variation in instrument calibration and/or instrument field use. Please delete the last sentence. Further investigation into differences between monitoring event values should be accomplished prior to finalizing the annual report.

6. Ground Water, page 6, 1st para:

   A statement needs to be added regarding the Maximum Exposure Guideline and Maximum Contaminant Level exceedences. The Department suggests that the following statement be added: "*Only one VOC (vinyl chloride) exceeded the Maine's Maximum Exposure Guideline and the Federal Maximum Contaminant Level, and two metals (manganese and chromium) exceeded regulatory standards.*"

7. Surface Water, page 6, 1st para:

   "No tentatively identified VOC were reported in surface water sample SW-010."

   This sentence should be moved to the end of paragraph 2 in this section, so that the detected VOCs are discussed first.

8. Sediment, page 7, 1st para:

   A statement must be added that a number of tentatively identified compounds were detected at moderate concentrations in sediment sample SED-010 (see Table C-3). Also, the reader should be referred to Appendix B (Analytical Data Quality Review subsections B.1, B.2 and B.7) which qualifies laboratory results as biased low estimates.

9. Sediment, page 7, 1st para:

   "A majority of the SVOC reported in the sample were polycyclic aromatic hydrocarbons, likely attributed to stormwater runoff over asphalt paved areas."

PAHs were found to be present in soils of the ash landfill/dump area north of Neptune Drive as a result of the Pollution Abatement Confirmation Study conducted in 1984. This being the case, the Department requests that this nearby source directly upgradient be mentioned with equal weight as stormwater runoff, unless a strong argument can be made in support of only runoff as a source.

10. Sediment, page 7, 1st para:

    "Note that significantly higher concentrations of SVOC were reported in the primary sample as compared to the duplicate sample at SW-010. This is attributed to the heterogeneous nature of the sediment media being sampled, and is consistent with previous monitoring events."

    Does the Navy mean SED-010 instead of SW-010? Please check and correct, as necessary.

11. Leachate Station Seep and Sediment, 2.6, page 7, 2nd para:

    "A total of 18 target analytes were reported in the leachate seep sample."

    Two of the inorganics (lead and manganese) have concentrations that exceed ground water MCLs and/or MEGs. A statement to this effect must be added.

12. Figure 1:

    Site 9 label and boundary is missing. The area shown as Site 9 should encompass all long-term monitoring stations associated with the site.

13. Table 3:

    The conductivity value for MW-NASB-071 should be 241, not 2.41. An erroneous pseudo-decimal point in Appendix A.2 was apparently misinterpreted. Please correct.

Thank you for the opportunity to review and comment on this document. Please feel free to call me at (207) 287-7713 if you have any questions or comments regarding this letter.

Respectfully,

Claudia Sait

Claudia Sait
Project Manager-Federal Facilities
Bureau of Remediation & Waste Management

cf: File
Larry Dearborn-DEP
Mike Barry-EPA
Greg Apraham- NASB
Peter Nimmer- EA
Susan Weddle-BACSE
Jeff Brandow-HLA
Jeff Dale-USN
Carolyn Lepage